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BUREAU OF PLANT INDUSTRY

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TALL FESCUE (*Festuca elatior*).

Tall fescue is an upright perennial grass resembling so closely the more common meadow fescue that no distinctive botanical differences can be determined. As its name indicates, it is ordinarily taller than meadow fescue and in general more robust. It does not produce seed so abundantly as meadow fescue, the stems being comparatively few.

Tall fescue was introduced from Europe a number of years ago, but as yet it is of very little importance in this country. One of the principal reasons for its not being more generally grown is that the seed is expensive, and difficulty has been experienced in securing a stand on account of its poor quality. There is very little seed produced in this country, most of it coming from Europe. This grass is adapted to a variety of soils and to the same region in general as meadow fescue, but like meadow fescue it does best on heavy soils possessing a considerable amount of humus. Little is known regarding its agricultural value in this country, but it is quite safe to say that it is equally as valuable as meadow fescue, and the department's tests of the two indicate that tall fescue produces more feed and is in general hardier than meadow fescue. While somewhat coarser than the latter it appears to be equally palatable and nutritious and is of more value for pasture than for hay.

In Kansas, Nebraska, and Missouri meadow fescue has often been affected by oat rust, which frequently damages the seed crop and destroys the aftergrowth. Tall fescue does not appear to be susceptible to the attacks of this rust, which, if true, is a point very much in its favor.

SEED.

Tall fescue has the undesirable habit of ripening its seed very unevenly on the panicle, causing it to shatter badly. This fault, coupled with the fact that it sends up few culms, makes the yield light. Fields in northeastern Kansas which ordinarily yield 12 to 18 bushels of meadow-fescue seed produce only 3 to 7 bushels per acre of tall fescue. The low seed yields account for the high price of tall-fescue

seed, the average retail price being usually 20 to 25 cents a pound. The legal weight per bushel is the same as for meadow fescue, 25 pounds. Tests carried out at Pullman, Wash., indicate that in eastern Washington seed can be produced more successfully than in eastern Kansas. Planted in rows 18 inches apart and cultivated, yields as high as 24 bushels per acre have been obtained.

PLANTING.

In eastern Kansas and Nebraska fall sowing seems to give the best results. However, in sections where the winters are cold and there is considerable freezing and thawing, causing the ground to heave badly, spring seeding is preferable. It is a common practice to sow tall fescue on ground that has been previously in wheat or oats and which has been plowed in July or early August. The ground when plowed then has sufficient time to settle, and by loosening up the surface with a disk harrow at the time of seeding, which is usually the last of August or early September, an excellent seed bed can be secured. Tall fescue is also sown successfully in fall wheat or rye. Seed may be sown either broadcast or with a press drill, the latter method giving the best results. When a drill is used it is well to sow one-half of the seed each way, so as to cover the ground more evenly. In sections where seed is produced, a perfect stand can be secured with about 15 pounds per acre. However, 20 to 25 pounds are recommended under most conditions. When sown alone in the autumn a crop of hay or seed may be expected the next year, and a considerable amount of pasture also.

HARVESTING.

When the meadow is intended primarily as a hay crop the grass is cut with a mower just as it is coming into bloom. The processes of curing and stacking are similar to those for timothy and other hay grasses. In harvesting a seed crop the grass must be cut as soon as it begins to take on a yellowish color; otherwise considerable seed will be lost through shattering. It is cut with a grain binder and placed in small shocks to cure, and the thrashing is ordinarily done directly from the shocks in the field; but brighter seed is obtained if the grass is stacked before thrashing. An ordinary grain separator can be used for thrashing by cutting off most of the blast from the fan. Special screens are of value, but are not necessary, as a wheat riddle does fairly satisfactory work.

USES AND VALUE.

Tall fescue is valued quite highly in England for seeding pastures and meadows, on account of its heavy basal foliage. If the seed was more reasonable in price it could be used to good advantage in many

parts of the United States in pasture mixtures. Its evident rust resistance and vigorous growth would give it preference over meadow fescue for seeding in pastures if the price of seed was the same. It is adapted for use in all parts of the timothy region, and even somewhat farther west and south.

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